APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/615,624	06/30/2003	Ya-Bing Chu	MSI-1500US	9379

22801   7590   06/08/2009
LEE & HAYES, PLLC
601 W. RIVERSIDE AVENUE
SUITE 1400
SPOKANE, WA 99201

EXAMINER
CHANG, JULIAN

ART UNIT	PAPER NUMBER
2452	

MAIL DATE	DELIVERY MODE
06/08/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS,
WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _19 February 2009_.

2a)☒ This action is FINAL.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-74_ is/are pending in the application.

    4a) Of the above claim(s) _71-74_ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-70_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

       1.☐ Certified copies of the priority documents have been received.

       2.☐ Certified copies of the priority documents have been received in Application No. _____.

       3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

This Office action is responsive to communication filed on 09/25/08. Claims 1-74 are pending, of which, claims 1-70 have been examined below.

Claim Rejections - 35 USC § 112

1.   The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2.   Claims 1-70 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The original disclosure teaches real-time context-sensitive troubleshooting help, but it does not teach that the troubleshooting help indicates a next connection technique to be attempted.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3.   Claims 1-15, 16, 18, 19 and 23-26 are rejected under 35 U.S.C. 103(a) as being

unpatentable over U.S. Pub. No. 2003/0069947 ("Lipinski"), and further in view of U.S.

Pub. No. 2004/0078708 ("Li"), U.S. Pub. No. 2003/0069992 ("Ramig"), U.S. Pat. No.

6,560,648 ("Dunn"), U.S. Pat. No. 6,958,996 ("Xiong"), and U.S. Pub. No.

2002/0065941 ("Kaan").

4.   Regarding claims 1 and 2, Lipinski teaches a method comprising:

        connecting a device to a network service in a plurality of stages (Fig. 2);

        wherein connecting in a plurality of stages includes:

                attempting to obtain IP settings via DHCP (Fig. 2, 207);

                performing a DNS name resolution (Fig. 2, 220); and

                sending test data between the device and network service (Fig. 2, 223).

        Lipinski fails to teach detecting a physical cable connection, displaying real-time

status of each of the plurality of stages, including troubleshooting help if necessary. Li

teaches detecting a physical cable connection (Fig. 2; para. [0039]), and displaying real-

time status information (para. [0039]), including troubleshooting help (para. [0006]). Li

further teaches displaying a failure indicator and troubleshooting help when a stage is

unsuccessful (para. [0006], [0039]). It would have been obvious to one of ordinary skill

in the art at the time of applicant's invention to test for a physical cable connection as

taught by Li in order to notify a user if the physical cable is not properly connected.

        Lipinski-Li fails to teach performing a DNS name resolution. Ramig teaches

performing a DNS name resolution (para. [0047]). It would have been obvious to one of

ordinary skill in the art at the time of applicant's invention to perform a DNS name
resolution in order to make sure the DNS is set up properly.

Lipinski-Li-Ramig fails to teach determining a QoS of a connection. Dunn
teaches testing the latency of a connection (Col. 7, lines 50-67). It would have been
obvious to one of ordinary skill in the art at the time of applicant's invention to test the
QoS of a connection in order to determine the quality of the connection, and to verify the
existence of a connection.

Lipinski-Li-Ramig-Dunn fails to teach attempting to connect using PPPoE if
DHCP is not successful. Xiong teaches attempting to connect using DHCP
unsuccessfully, and then attempting to connect using PPPoE (Fig. 7; Col. 7, lines 6-34).
It would have been obvious to one of ordinary skill in the art at the time of applicant's
invention to attempt DHCP, and then PPPoE as taught by Xiong in order to
automatically configure a network connection.

Lipinski-Li-Ramig-Dunn-Xiong fails to teach that troubleshooting help includes an
indication of a next technique to be attempted. Kaan teaches message dialog box that
indicates the progress of connecting to a network, including what techniques are being
attempted for each stage (Fig. 4, 420). It would have been obvious to one of ordinary
skill in the art at the time of applicant's invention to display the technique being
attempted as taught by Kaan in order to keep the user informed.

Lipinski-Li-Ramig-Dunn-Xiong-Kaan fails to teach attempting different connection
techniques at each stage until the stage is successful. Since Xiong teaches attempting
different techniques during one stage, it would have been obvious to one of ordinary

skill in the art to attempt different techniques at each stage. The Supreme Court has held that the use of a known technique to improve similar devices in the same way is obvious unless using the technique is beyond the skill of one of ordinary skill in the art. KSR Intern. Co. v. Teleflex Inc., 127 S.Ct. 1727, 1740 (2007). In the instant situation, it is clear that one of ordinary skill in the art would easily be capable of modifying a system such as that disclosed in Lipinski to attempt different techniques at each stage.

5.   Regarding claim 3, Lipinski-Li-Ramig-Dunn-Xiong-Kaan teaches the invention substantially as claimed and described in claim 1 above, including a communicative coupling stage between the device and a network (Lipinski: 'IN USE?', Fig. 2).

6.   Regarding claim 4, Lipinski-Li-Ramig-Dunn-Xiong-Kaan teaches the invention substantially as claimed and described in claim 1 above, including a network settings stage for configuring one of a network protocol and a network address (Lipinski: 'GET DHCP NETWORK SETTINGS', Fig. 2).

7.   Regarding claim 5, Lipinski-Li-Ramig-Dunn-Xiong-Kaan teaches the invention substantially as claimed and described in claim 4 above, including a network settings stage exists as an Internet Protocol (IP) settings stage and the network address exists as an IP address (Lipinski: Fig. 2).

8.   Regarding claim 6, Lipinski-Li-Ramig-Dunn-Xiong-Kaan teaches the invention

substantially as claimed and described in claim 5 above, including one or more

techniques are attempted for completing an IP settings stage including one of a

dynamic host configuration protocol (DHCP) technique, a point-to-point protocol over

Ethernet (PPPoE) technique, and a bootstrap protocol (BOOTP) technique (Lipinski:

'DHCP', Fig. 2).

9.   Regarding claim 7, Lipinski-Li-Ramig-Dunn-Xiong-Kaan teaches the invention

substantially as claimed and described in claim 4 above, including a name resolution

stage for associating the network address to a network domain name (Lipinski: 'NEED

NAME SERVER?', Fig. 2).

10.   Regarding claim 8, Lipinski-Li-Ramig-Dunn-Xiong-Kaan teaches the invention

substantially as claimed and described in claim 7 above, including that a name

resolution stage exists as a domain name system (DNS) name resolution stage

(Lipinski: 'ENTER DNS', Fig. 2).

11.   Regarding claim 9, Lipinski-Li-Ramig-Dunn-Xiong-Kaan teaches the invention

substantially as claimed and described in claim 1 above, including a service connection

stage for confirming communication with the network service (Lipinski: 'TEST

NETWORK ACCESS', Fig. 2).

12.   Regarding claim 10, Lipinski-Li-Ramig-Dunn-Xiong-Kaan teaches the invention
substantially as claimed and described in claim 1 above, including proceeding
automatically between each of the multiple stages of connecting (Lipinski: para. [0023]).

13.   Regarding claim 11, Lipinski-Li-Ramig-Dunn-Xiong-Kaan teaches the invention
substantially as claimed and described in claim 1 above, including that real-time status
includes a message describing one of the plurality of stages (Li: para. [0039]).

14.   Regarding claim 15, Lipinski-Li-Ramig-Dunn-Xiong-Kaan teaches the invention
substantially as claimed and described in claim 1 above, including troubleshooting help
including instructions for completing one of the plurality of stages (Li: para. [0006]).

15.   Regarding claim 16, Lipinski-Li-Ramig-Dunn-Xiong-Kaan teaches the invention
substantially as claimed and described in claim 1 above, including the troubleshooting
help including instructions for completing a technique used to complete one of the
plurality of stages (Li: para. [0006]).

16.   Regarding claim 18 Lipinski-Li-Ramig-Dunn-Xiong-Kaan teaches the invention
substantially as claimed and described in claim 46 above, including troubleshooting help
including an error log compiled during the connecting (Li: para. [0006], [0039]).

17.   Regarding claim 19, Lipinski-Li-Ramig-Dunn-Xiong-Kaan teaches the invention

substantially as claimed and described in claim 46 above, including troubleshooting help

including a stage during the connecting at which a failure occurred (Li: para. [0006],

[0039]).

18.   Regarding claim 23, Lipinski-Li-Ramig-Dunn-Xiong-Kaan teaches the invention

substantially as claimed and described in claim 1 above, including that a device

connects to a network service over the Internet (Lipinski: para. [0002]).

19.   Regarding claim 24, Lipinski-Li-Ramig-Dunn-Xiong-Kaan teaches the invention

substantially as claimed and described in claim 23, including a network settings stage

for configuring one of a network protocol for the Internet and an Internet Protocol

address (Lipinski: para. [0003]).

20.   Regarding claim 25, Lipinski-Li-Ramig-Dunn-Xiong-Kaan teaches the invention

substantially as claimed and described in claim 24 above, including that a dynamic host

configuration protocol (DHCP) technique is attempted to complete the network settings

stage and if the DHCP technique fails, then a point-to-point protocol over Ethernet

(PPPoE) technique is automatically attempted to complete the network settings stage.

        Connecting to a network using DHCP and PPPoE were both very well known at

the time of applicant's invention. In U.S. Pat. No. 6,012,088, Li, et al teaches a system

for automatically configuring an Internet access device, Including settings for DHCP and

PPP. Applicant has simply disclosed a system for applying a brute force trial-and-error approach to connecting to a network. The Court has stated in a recent decision that the combination of prior art elements according to known methods to yield predictable results would have been obvious. MEP 2143. Prior to applicant's invention a user that fails to connect to a network via DHCP may well have tried to connect via other known methods, including PPPoE. Applicant's invention has simply automated this process, and cannot be considered novel.

21.   Regarding claim 12, Lipinski-Li-Ramig-Dunn-Xiong-Kaan teaches the invention substantially as claimed and described in claims 11 above, including a message describing progress of a technique used to complete one of the plurality of stages (Kaan: paras [0072]-[0073]).

22.   Regarding claim 13, Lipinski-Li-Ramig-Dunn-Xiong-Kaan teaches the invention substantially as claimed and described in claim 1 above, including a visual indicator of progress of one of the plurality of stages (Kaan: Fig. 4).

23.   Regarding claim 14, Lipinski-Li-Ramig-Dunn-Xiong-Kaan teaches the invention substantially as claimed and described in claim 1 above, including a visual indicator of success or failure of one of the plurality of stages (Kaan: Fig 4).

24.   Regarding claim 26, Lipinski-Li-Ramig-Dunn-Xiong-Kaan teaches the invention

substantially as claimed and described in claim 1 above, including testing whether a

communicative coupling exists between the device and the network (Li: para. [0039]),

and displaying real time status of the testing (Id.), and displaying troubleshooting

instructions (Li: para. [0006]). Lipinski-Li-Ramig-Dunn-Xiong-Kaan also teaches

displaying success or failure indicators (Kaan: Fig.4).

        While Lipinski-Li-Ramig-Dunn-Xiong-Kaan does not teach displaying such

indicators for each stage, and does not teach displaying troubleshooting instructions for

each stage, one of ordinary skill in the art would have found it obvious to do so.

Applying a known technique to a known method is obvious if it yields predictable results.

MPEP 2143.

25.   Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lipinski-

Li-Ramig-Dunn-Xiong-Kaan as applied to claim 1 above, and further in view of U.S. Pat.

No. 6,442,444 ("Matsubara").

26.   Regarding claim 17, Lipinski-Li-Ramig-Dunn-Xiong-Kaan teaches the invention

substantially as claimed and described in claim 1 above, but fails to teach

troubleshooting help including a serial number of the device.

        However, Matsubara teaches displaying a serial number for troubleshooting (Fig.

2).

It would have been obvious to one of ordinary skill in the art at the time of the invention to use a serial number for troubleshooting as taught by Matsubara with motivation to easily determine the serial number.

27.   Claims 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lipinski-Li-Ramig-Dunn-Xiong-Kaan as applied to claims 1 above, and further in view of U.S. Pat. No. 7,016,948 ("Yildiz").

28.   Regarding claim 20, Lipinski-Li-Ramig-Dunn-Xiong-Kaan teaches the invention substantially as claimed and described in claim 1, but fails to teach a quality of service testing stage.

However, Yildiz teaches testing for quality of service (col. 2, lines 25-45).

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to measure quality of service as taught by Yildiz with motivation to maintain a minimum level of service.

29.   Regarding claim 21, Lipinski-Li-Ramig-Dunn-Xiong-Kaan teaches the invention substantially as claimed and described in claim 20, including troubleshooting includes quality of service information (Yildiz: col. 2, lines 25-45).

30.   Regarding claim 22, Lipinski-Li-Ramig-Dunn-Xiong-Kaan teaches the invention substantially as claimed and described in claim 21, including that quality of service

information including one of an upload bandwidth, a download bandwidth, a network

data packet latency, a network data packet drop rate, and a network jitter value (Yildiz:

'jitter', col. 2, lines 25-45).

31.   Claims 27, 29, 34, 35 and 37 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Lipinski, and further in view of Li, Xiong, and Kaan.

32.   Regarding claim 27, Lipinski teaches an engine comprising:

        network settings engine to configure network settings, wherein the network

settings include a network address ('GET DHCP NETWORK SETTINGS', Fig. 2);

        a name resolution engine to associate a computing domain name with the

network address ('ENTER DNS', Fig. 2); and

        a service connection engine to communicate with a network service ('TEST

NETWORK ACCESS', Fig. 2).

        Lipinski fails to teach a communicative coupling engine to verify a communicative

coupling between a device and a network. Li teaches detecting a physical cable

connection (Fig. 2; para. [0039]). Li further teaches displaying a failure indicator and

troubleshooting help when a stage is unsuccessful (para. [0006], [0039]). It would have

been obvious to one of ordinary skill in the art at the time of applicant's invention to test

for a physical cable connection in order to notify a user if the physical cable is not

properly connected.

Lipinski-Li fails to teach successively applying different connection techniques upon a failure of part of a connection process. One example given in the disclosure by applicant is attempting PPPoE if DHCP fails. Xiong teaches attempting to connect using DHCP unsuccessfully, and then attempting to connect using PPPoE (Fig. 7; Col. 7, lines 6-34). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to attempt DHCP, and then PPPoE as taught by Xiong in order to automatically configure a network connection.

Lipinski-Li-Xiong fails to teach that troubleshooting help includes an indication of a next technique to be attempted. Kaan teaches message dialog box that indicates the progress of connecting to a network, including what techniques are being attempted for each stage (Fig. 4, 420). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to display the technique being attempted as taught by Kaan in order to keep the user informed.

Lipinski-Li-Xiong-Kaan fails to teach attempting different connection techniques at each stage until the stage is successful. Since Xiong teaches attempting different techniques during one stage, it would have been obvious to one of ordinary skill in the art to attempt different techniques at each stage. The Supreme Court has held that the use of a known technique to improve similar devices in the same way is obvious unless using the technique is beyond the skill of one of ordinary skill in the art. KSR Intern. Co. v. Teleflex Inc., 127 S.Ct. 1727, 1740 (2007). In the instant situation, it is clear that one of ordinary skill in the art would easily be capable of modifying a system such as that disclosed in Lipinski to attempt different techniques at each stage.

33.   Regarding claim 29, Lipinski-Li-Xiong-Kaan teaches the invention substantially

as claimed and described in claim 27 above, including a help and troubleshooting

engine to instructions in response to a connection failure. Li teaches the display of real-

time status and real-time troubleshooting help (Li: para. [0006], [0039]).

        It would have been obvious to one of ordinary skill in the art at the time of

applicant's invention to employ a troubleshooting help in the connection system of

Lipinski with motivation to aid a user in troubleshooting a connection.

34.   Regarding claim 34, Lipinski-Li-Xiong-Kaan teaches the invention substantially

as claimed and described in claim 27 above, including a user-interface engine to

generate a user interface for displaying a status of the connecting the device to the

network (Kaan: Fig. 4, 420).

35.   Regarding claim 35, Lipinski-Li-Xiong-Kaan teaches the invention substantially

as claimed and described in claim 34 above including displaying troubleshooting

instructions (Li: para. [0006]).

36.   Regarding claim 37, Lipinski-Li-Xiong-Kaan teaches the invention substantially

as claimed and described in claim 34 above, including a user interface to display error

information from an error logging engine (Kaan: para. [0088]).

37.   Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lipinski-Li-Xiong-Kaan as applied to claim 27 above, and further in view of Yildiz.

38.   Regarding claim 28, Lipinski-Li-Xiong-Kaan teaches the invention substantially as claimed and described in claim 27 above, but fails to teach a quality of service module to test and record quality of service parameters in a network.

         However, Yildiz teaches a quality of service module (col. 2, lines 25-45).

         It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to employ a quality of service module as taught by Yildiz with motivation to maintain a minimum level of service.

39.   Claims 30 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lipinski-Li-Xiong-Kaan as applied to claim 27 above, and further in view of U.S. Pat. No. 5,790,779 ("Ben").

40.   Regarding claim 30, Lipinski-Li-Xiong-Kaan teaches the invention substantially as claimed and described in claim 27 above, but fails to teach an error logging engine to record errors during one or more connection attempts.

         However, Ben teaches the aggregation of error logs (abstract).

         It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to log errors as taught by Ben with motivation to allow a user to troubleshoot the problem.

41.   Regarding claim 31, Lipinski-Li-Xiong-Kaan-Ben teaches the invention

substantially as claimed and described in claim 30 above, including persisting a failure

record and related extended error information of a failed connection stage for uploading

to a service in response to a subsequent successful connection to a network (Ben: para.

[0003], [0004], [0009]).

42.   Claims 32 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Lipinski-Li-Xiong-Kaan-Ben as applied to claim 30 above, and further in view of

U.S. Pat. No. 6,535,865 ("Skaaning").

43.   Regarding claim 32, Lipinski-Li-Xiong-Kaan-Ben teaches the invention

substantially as claimed and described in claim 30 above, but fails to teach that failure

record and related extended error information are uploaded for statistical treatment of

multiple connection failures.

        However, Skaaning teaches performing statistical analysis using Bayesian

networks to troubleshoot errors (col. 5, lines 30-50).

        It would have been obvious to one of ordinary skill in the art at the time of

applicant's invention to use Bayesian networks for statistical analysis of errors as taught

by Skaaning with motivation to troubleshoot more efficiently.

44.   Regarding claim 33, Lipinski-Li-Xiong-Kaan-Ben teaches the invention

substantially as claimed and described in claim 30 above, but fails to teach that failure

record and related extended error information are uploaded for a Bayes network to

refine a connection stage between the device and the network.

   However, Skaaning teaches performing statistical analysis using Bayesian

networks to troubleshoot errors (col. 5, lines 30-50).

   It would have been obvious to one of ordinary skill in the art at the time of

applicant's invention to use Bayesian networks for statistical analysis of errors as taught

by Skaaning with motivation to troubleshoot more efficiently.

45.   Claim 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lipinski-

Li-Xiong-Kaan as applied to claim 34 above, and further in view of Yildiz.

46.   Regarding claim 36, Lipinski-Li-Xiong-Kaan teaches the invention substantially

as claimed and described in claim 34 above, but fails to teach a user interface to display

quality of service information from a quality of service engine.

   However, Yildiz teaches a user interface to display quality of service information

from a quality of service engine (col. 8, lines 1-19).

   It would have been obvious to one of ordinary skill in the art at the time of

applicant's invention to employ a GUI for monitoring a quality of service as taught by

Yildiz with motivation to allow a user to analyze a network graphically.

47.   Claim 38 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lipinski-Li-Xiong-Kaan as applied to claim 27 above, and further in view of applicant admitted prior art.

48.   Regarding claim 38, Lipinski-Li-Xiong-Kaan teaches the invention substantially as claimed and described in claim 27 above, including manual connecting includes manual entry of at least one network setting (Lipinski: 'MANUAL SETUP?', Fig. 2), but fails to teach a mode selector to switch between automatically connecting the device and the network and manual connecting the device and the network.

       Official notice was taken in a previous Office action that such a mode selector was well known at the time of applicant's invention. Since applicant has failed to timely traverse the statements taken under Official notice, said statements are taken to be applicant admitted prior art. See MPEP 2144.03. On such example can be found in U.S. Pat. No. 5,579,446 (Naik, et al) (Fig 2b).

       It would have been obvious to one of ordinary skill in the art at the time of the invention to include such a mode selector in order to allow advanced users to manually control the operation of the system, while not overwhelming beginner users with settings they are unfamiliar with.

49.   Claim 39 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lipinski, and further in view of Li, Ramig, Xiong, and Kaan.

50.   Regarding claim 39, Lipinski teaches instructions for a method comprising:

if the communicative coupling is verified, then obtaining an IP address using the communicative coupling ('GET DHCP NETWORK SETTINGS', Fig. 2); and

attempting communication with an online service using the IP address or the domain name ('TEST NETWORK ACCESS', Fig. 2).

Lipinski fails to teach a communicative coupling engine to verify a communicative coupling between a device and a network. Li teaches detecting a physical cable connection (Fig. 2; para. [0039]). Li further teaches displaying a failure indicator and troubleshooting help when a stage is unsuccessful (para. [0006], [0039]). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to test for a physical cable connection in order to notify a user if the physical cable is not properly connected.

Lipinski-Li fails to teach performing a DNS name resolution. Ramig teaches performing a DNS name resolution (para. [0047]). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to perform a DNS name resolution in order to make sure the DNS is set up properly.

Lipinski-Li-Ramig fails to teach that a dynamic host configuration protocol (DHCP) technique is attempted to complete the network settings stage and if the DHCP technique fails, then a point-to-point protocol over Ethernet (PPPoE) technique is automatically attempted to complete the network settings stage. Xiong teaches attempting to connect using DHCP unsuccessfully, and then attempting to connect using PPPoE (Fig. 7; Col. 7, lines 6-34). It would have been obvious to one of ordinary

skill in the art at the time of applicant's invention to attempt DHCP, and then PPPoE as taught by Xiong in order to automatically configure a network connection.

Lipinski-Li-Ramig-Xiong fails to teach that troubleshooting help includes an indication of a next technique to be attempted. Kaan teaches message dialog box that indicates the progress of connecting to a network, including what techniques are being attempted for each stage (Fig. 4, 420). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to display the technique being attempted as taught by Kaan in order to keep the user informed.

Lipinski-Li-Ramig-Xiong fails to teach attempting different connection techniques at each stage until the stage is successful. Since Xiong teaches attempting different techniques during one stage, it would have been obvious to one of ordinary skill in the art to attempt different techniques at each stage. The Supreme Court has held that the use of a known technique to improve similar devices in the same way is obvious unless using the technique is beyond the skill of one of ordinary skill in the art. KSR Intern. Co. v. Teleflex Inc., 127 S.Ct. 1727, 1740 (2007). In the instant situation, it is clear that one of ordinary skill in the art would easily be capable of modifying a system such as that disclosed in Lipinski to attempt different techniques at each stage.

51.   Claims 40-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lipinski-Li-Ramig-Xiong-Kaan as applied to claim 39 above, and further in view of Yildiz.

52.   Regarding claim 40, Lipinski-Li-Ramig-Xiong-Kaan teaches the invention

substantially as claimed and described in claim 39 above, but fails to teach testing

quality of service parameters between the device and the online service.

However, Yildiz teaches monitoring a quality of service (col. 2, lines 25-45).

It would have been obvious to one of ordinary skill in the art at the time of

applicant's invention to employ a quality of service module as taught by Yildiz with

motivation to maintain a minimum level of service.

53.   Regarding claim 41, Lipinski-Li-Ramig-Xiong-Kaan-Yildiz teaches the invention

substantially as claimed and described in claim 40 above, including displaying real-ime

status and real-time troubleshooting help (para. [0006], [0039]).

54.   Regarding claim 42, Lipinski-Li-Ramig-Xiong-Kaan-Yildiz teaches the invention

substantially as claimed and described in claim 41 above, including displaying

troubleshooting instructions associated with a part of the method whenever the part of

the method is not automatically completed (Li: para. [0006]).

55.   Claims 43 and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Lipinski-Li-Ramig-Xiong-Kaan as applied to claim 39 above, and further in view of

Ben.

56.   Regarding claim 43, Lipinski-Li-Ramig-Xiong-Kaan teaches the invention
substantially as claimed and described in claim 39 above, but fails to teach storing a
failure record and related extended error information with respect to failures in the
connection stages of verifying a communicative coupling, obtaining an IP address,
querying a domain name system, and attempting communication with an online service.

      However, Ben teaches the aggregation of error logs (abstract).

      It would have been obvious to one of ordinary skill in the art at the time of
applicant's invention to log errors as taught by Ben with motivation to allow a user to
troubleshoot the problem.

57.   Regarding claim 44, Lipinski-Li-Ramig-Xiong-Kaan-Ben teaches the invention
substantially as claimed and described in claim 43 above, including uploading the failure
record and related extended error information in response to a subsequent successful
connection to a network (Ben: para. [0003], [0004], [0009]).

58.   Claim 45 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lipinski-
Li-Ramig-Xiong-Kaan-Ben as applied to claim 44 above, and further in view of
Skaaning.

59.   Regarding claim 45, Lipinski-Li-Ramig-Xiong-Kaan-Ben teaches the invention
substantially as claimed and described in claim 44 above, but fails to teach that failure

record and related extended error information is used in a Bayes network to improve at
least one of the connection stages.

However, Skaaning teaches performing statistical analysis using Bayesian
networks to troubleshoot errors (col. 5, lines 30-50).

It would have been obvious to one of ordinary skill in the art at the time of
applicant's invention to use Bayesian networks for statistical analysis of errors as taught
by Skaaning with motivation to troubleshoot more efficiently.

60.   Claims 46-61, 63, 64 and 68-70 are rejected under 35 U.S.C. 103(a) as being
unpatentable over Lipinski, and further in view of Kaan, Li, and Xiong.

61.   Regarding claim 46 and 68, Lipinski teaches a method comprising:

connecting a device to a network service in a plurality of stages (Fig. 2);

selecting one of the stages ('TEST DHCP', Fig. 2);

attempting a technique for completing the selected stage ('TEST DHCP', Fig. 2);
and

if the technique is successful, then selecting a subsequent stage and attempting
a technique to complete the subsequent stage (Fig. 2, 223).

Lipinski fails to teach displaying real-time status reports of attempting and of a
success or a failure of a technique, and troubleshooting help that includes an indication
of a next technique to be attempted. Kaan teaches displaying such real time status
reports (Fig. 12). Kaan also teaches message dialog box that indicates the progress of

connecting to a network, including what techniques are being attempted for each stage
(Fig. 4, 420). It would have been obvious to one of ordinary skill in the art at the time of
applicant's invention to display real time status reports to inform a user of the progress
of the process.

Lipinski-Kaan fails to teach displaying troubleshooting instructions if a technique
is not successful and there are no more techniques available. Li teaches displaying a
failure indicator and troubleshooting help when a stage is unsuccessful (para. [0006],
[0039]). It would have been obvious to one of ordinary skill in the art at the time of
applicant's invention to display troubleshooting instructions in order to aid the user in
solving the problem.

Lipinski-Kaan-Li fails to teach attempting another technique if the attempt is not
successful. One example given in the disclosure by applicant is attempting PPPoE if
DHCP fails. Xiong teaches attempting to connect using DHCP unsuccessfully, and then
attempting to connect using PPPoE (Fig. 7; Col. 7, lines 6-34). It would have been
obvious to one of ordinary skill in the art at the time of applicant's invention to attempt
DHCP, and then PPPoE as taught by Xiong in order to automatically configure a
network connection.

Lipinski-Kaan-Li-Xiong fails to teach attempting different connection techniques
at each stage until the stage is successful. Since Xiong teaches attempting different
techniques during one stage, it would have been obvious to one of ordinary skill in the
art to attempt different techniques at each stage. The Supreme Court has held that the
use of a known technique to improve similar devices in the same way is obvious unless

using the technique is beyond the skill of one of ordinary skill in the art. KSR Intern. Co.

v. Teleflex Inc., 127 S.Ct. 1727, 1740 (2007). In the instant situation, it is clear that one

of ordinary skill in the art would easily be capable of modifying a system such as that

disclosed in Lipinski to attempt different techniques at each stage.

62.   Regarding claim 47, Lipinski-Kaan-Li-Xiong teaches the invention substantially

as claimed and described in claim above, including that a device connects to a network

service over the Internet (Lipinski: para. [0002]).

63.   Regarding claim 48, Lipinski-Kaan-Li-Xiong teaches the invention substantially

as claimed and described in claim 46 above, including a communicative coupling stage

between the device and a network (Lipinski: 'IN USE?', Fig. 2).

64.   Regarding claim 49, Lipinski-Kaan-Li-Xiong teaches the invention substantially

as claimed and described in claim 46 above, including a network settings stage for

configuring one of a network protocol and a network address (Lipinski: 'GET DHCP

NETWORK SETTINGS', Fig. 2).

65.   Regarding claim 50, Lipinski-Kaan-Li-Xiong teaches the invention substantially

as claimed and described in claim 49 above, including a network settings stage exists

as an Internet Protocol (IP) settings stage and the network address exists as an IP

address (Lipinski: Fig. 2).

66.   Regarding claim 51, Lipinski-Kaan-Li-Xiong teaches the invention substantially
as claimed and described in claim 50 above, including one or more techniques are
attempted for completing an IP settings stage including one of a dynamic host
configuration protocol (DHCP) technique, a point-to-point protocol over Ethernet
(PPPoE) technique, and a bootstrap protocol (BOOTP) technique (Lipinski: 'DHCP', Fig.
2)

67.   Regarding claim 52, Lipinski-Kaan-Li-Xiong teaches the invention substantially
as claimed and described in claim 49 above, including a name resolution stage for
associating the network address to a network domain name (Lipinski: 'NEED NAME
SERVER?', Fig. 2).

68.   Regarding claim 53, Lipinski-Kaan-Li-Xiong teaches the invention substantially
as claimed and described in claim 52 above, including that a name resolution stage
exists as a domain name system (DNS) name resolution stage (Lipinski: 'ENTER DNS',
Fig. 2).

69.   Regarding claim 54, Lipinski-Kaan-Li-Xiong teaches the invention substantially
as claimed and described in claim 46 above, including a service connection stage for
confirming communication with the network service (Lipinski: 'TEST NETWORK
ACCESS', Fig. 2).

70.   Regarding claim 55, Lipinski-Kaan-Li-Xiong teaches the invention substantially as claimed and described in claim 46 above, including proceeding automatically between each of the multiple stages of connecting (Lipinski: para. [0023]).

71.   Regarding claim 56, Lipinski-Kaan-Li-Xiong teaches the invention substantially as claimed and described in claim 46 above, including that real-time status includes a message describing one of the plurality of stages (Kaan: Fig. 12).

72.   Regarding claim 57, Lipinski-Kaan-Li-Xiong teaches the invention substantially as claimed and described in claim 56 above, including a message describing progress of a technique used to complete one of the plurality of stages (Kaan: paras [0072]-[0073]).

73.   Regarding claim 58, Lipinski-Kaan-Li-Xiong teaches the invention substantially as claimed and described in claim 46 above, including a visual indicator of progress of one of the plurality of stages (Kaan: Fig 4).

74.   Regarding claim 59, Lipinski-Kaan-Li-Xiong teaches the invention substantially as claimed and described in claim 46 above, including a visual indicator of success or failure of one of the plurality of stages (Kaan: Fig. 4).

75.   Regarding claim 60, Lipinski-Kaan-Li-Xiong teaches the invention substantially as claimed and described in claim 46 above, including troubleshooting help including instructions for completing one of the plurality of stages (Li: para. [0006]).

76.   Regarding claim 61, Lipinski-Kaan-Li-Xiong teaches the invention substantially as claimed and described in claim 46 above, including the troubleshooting help including instructions for completing a technique used to complete one of the plurality of stages (Li: para. [0006]).

77.   Regarding claim 63, Lipinski-Kaan-Li-Xiong teaches the invention substantially as claimed and described in claim 46 above, including troubleshooting help including an error log compiled during the connecting (Li: para. [0006], [0039]).

78.   Regarding claim 64, Lipinski-Kaan-Li-Xiong teaches the invention substantially as claimed and described in claim 46 above, including troubleshooting help including a stage during the connecting at which a failure occurred (Li: para. [0006], [0039]).

79.   Regarding claim 69, Lipinski-Kaan-Li-Xiong teaches the invention substantially as claimed and described in claim 68, including a network settings stage for configuring one of a network protocol for the Internet and an Internet Protocol address (Lipinski: para. [0003]).

80.   Regarding claims 70, Lipinski-Kaan-Li-Xiong teaches the invention substantially

as claimed and described in claim 69 above, including that a dynamic host configuration

protocol (DHCP) technique is attempted to complete the network settings stage and if

the DHCP technique fails, then a point-to-point protocol over Ethernet (PPPoE)

technique is automatically attempted to complete the network settings stage (Fig. 7).

81.   Claim 62 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lipinski-

Kaan-Li-Xiong as applied to claim 46 above, and further in view of Matsubara.

82.   Regarding claim 62, Lipinski-Kaan-Li-Xiong teaches the invention substantially

as claimed and described in claim 46 above, but fails to teach troubleshooting help

including a serial number of the device.

        However, Matsubara teaches displaying a serial number for troubleshooting (Fig.

2).

        It would have been obvious to one of ordinary skill in the art at the time of the

invention to use a serial number for troubleshooting as taught by Matsubara with

motivation to easily determine the serial number.

83.   Claims 65-67 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Lipinski-Kaan-Li-Xiong as applied to claim 46 above, and further in view of Yildiz.

84.   Regarding claim 65, Lipinski-Kaan-Li-Xiong teaches the invention substantially

as claimed and described in claim 46, but fails to teach a quality of service testing

stage.

However, Yildiz teaches testing for quality of service (col. 2, lines 25-45).

It would have been obvious to one of ordinary skill in the art at the time of

applicant's invention to measure quality of service as taught by Yildiz with motivation to

maintain a minimum level of service.

85.   Regarding claim 66, Lipinski-Kaan-Li-Xiong-Yildiz teaches the invention

substantially as claimed and described in claim 65, including troubleshooting includes

quality of service information (Yildiz: col. 2, lines 25-45).

86.   Regarding claim 67, Lipinski-Kaan-Li-Xiong -Yildiz teaches the invention

substantially as claimed and described in claim 66 above, including that quality of

service information including one of an upload bandwidth, a download bandwidth, a

network data packet latency, a network data packet drop rate, and a network jitter value

(Yildiz: 'jitter', col. 2, lines 25-45).

Response to Arguments

87.   Applicant's arguments filed 02/19/09 have been fully considered but they are not

persuasive.

a.   Applicant argues that the cited references fail to teach attempting different techniques at each stage. (Remarks 36). Applicant's argument is not persuasive. Since Xiong teaches attempting different techniques during one stage, it would have been obvious to one of ordinary skill in the art to attempt different techniques at each stage. The Supreme Court has held that the use of a known technique to improve similar devices in the same way is obvious unless using the technique is beyond the skill of one of ordinary skill in the art. KSR Intern. Co. v. Teleflex Inc., 127 S.Ct. 1727, 1740 (2007). In the instant situation, it is clear that one of ordinary skill in the art would easily be capable of modifying a system such as that disclosed in Lipinski to attempt different techniques at each stage.

Conclusion

88.   Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the date of this final action.

89.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to JULIAN CHANG whose telephone number is (571)272-

8631. The examiner can normally be reached on Monday thru Friday 9AM to 5PM.

        If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, John Follansbee can be reached on (571) 272-3964. The fax phone

number for the organization where this application or proceeding is assigned is 571-

273-8300.

        Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

                                                    /Kenny S Lin/
                                                    Primary Examiner, Art Unit 2452
/J. C./
Examiner, Art Unit 2452